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ABSTRACT

This learning module, which is part of a staff development program for health occupations clinical instructors, discusses the process of clinical evaluation. It includes learning activities dealing with the concept of clinical evaluation, evaluation terminology, problems in and legal aspects of clinical evaluation, and approaches to and techniques for clinical evaluation. Besides the learning activities, the module also includes directions for completing the module, an introduction, module objectives, pre- and posttests and answer keys, definitions of key terms used in the module, a module summary, and references. (MN)

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Health Occupations Clinical Teacher Education Series for Secondary and Post-Secondary Educators

Illinois State Board of Education

Adult, Vocational and Technical Education

Clinical Evaluation: Theory and Practice in the Health Occupations

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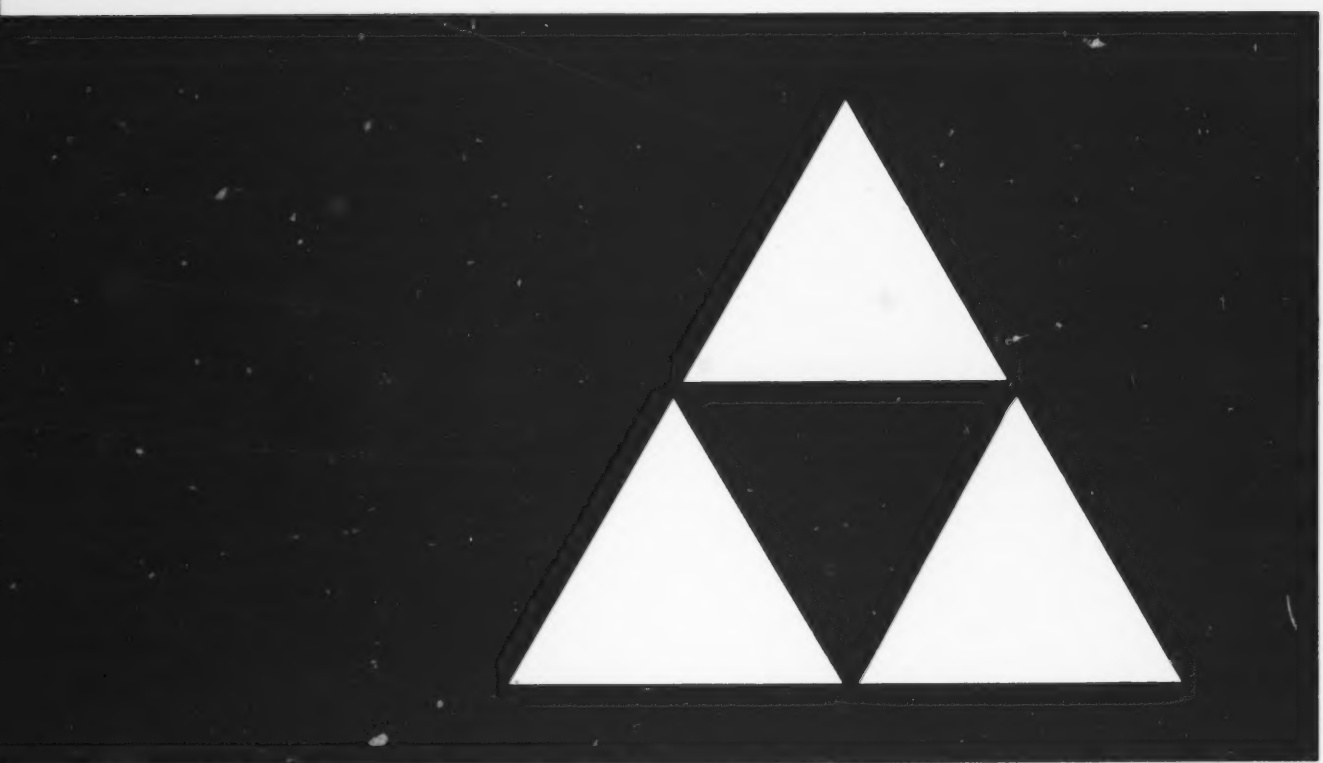

HEALTH OCCUPATIONS CLINICAL TEACHER EDUCATION SERIES FOR SECONDARY AND POST-SECONDARY EDUCATORS

Clinical Evaluation:
Theory and Practice
in Health Occupations

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Adult, Vocational
and Technical Education

Research and
Development Section

CLINICAL EVALUATION:

THEORY AND PRACTICE IN HEALTH OCCUPATIONS

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CLINICAL EVALUATION:

THEORY AND PRACTICE FOR HEALTH OCCUPATIONS

DIRECTIONS FOR COMPLETING THE MODULE

The module includes the following parts:

1) Introduction, Objectives, and Definition of Terms

2) Pre-Test and Answer Key

3) Learning Activities 1-5 and Self-Check Exercises

4) Post-Test and Answer Key

Following review of the Introduction, take the Pre-Test and use the key to determine your score. The Pre-Test is intended to help introduce the Learning Activities within the module.

Then proceed to complete the Learning Activities. Even if you feel knowledgeable about the topic, completion of the Learning Activities will provide additional awareness and help you to grow. It is important that you complete the Self-Check following each activity.

The final part of the module, the Post-Test, is intended to measure your achievement of the objectives of the module. Complete the test without using the key or the module itself. You may then score your test. If you had more than 3 incorrect answers, you should review the module. The important part to remember is to practice what is suggested in this module.

Go on to the Introduction.

INTRODUCTION

The job of a clinical instructor in the health professions has many requirements. Perhaps the most important of these requirements is the evaluation of the students in the clinical setting. To many instructors, students, and staff, clinical evaluation simply means periodically observing students as they complete assigned procedures, and filling out some type of evaluation form to measure their performance. This perspective of clinical evaluation underrates its importance and function in the student's total educational process.

Evaluation is a vital link in the teaching-learning process. Clinical evaluation involves a great deal more than filling out forms and assigning grades. The process of evaluation helps to develop the learner, and helps health occupations educators to improve their programs. Those who are responsible for evaluating students in the clinical setting must have a clear understanding of the roles and challenges of clinical evaluation so that they may best serve their students, the program, and ultimately the patients.

This module will include a discussion of the process of clinical evaluation, including terminology, problems, legal aspects, and approaches to clinical evaluation. Following completion of the module, the reader should have a better understanding of the concept of clinical evaluation and should be able to complete the next module on selecting instruments for clinical evaluation. Review the Objectives and then complete the Pre-Test.

Go on to the Objectives of the Module.

OBJECTIVES OF THE MODULE

Terminal Objective: Review the theoretical concepts and practical applications of evaluation in the clinical setting.

Enabling Objectives:

1. Discuss the role of evaluation as it relates to the total clinical education process.
2. Distinguish between various terms used to describe evaluation.
3. Examine your clinical site to determine existing problems related to clinical evaluation.
4. Review the legal considerations involved in evaluating students in the clinical setting.
5. Given a series of situations, indicate which evaluation technique you would utilize.

Go on to the Pre-Test.

PRE-TEST

Directions: Complete this test prior to completing the Learning Activities. Use the key which follows to check your answers.

Answer True or False to the following.

T or F 1. Evaluation is used to make decisions.

T or F 2. Evaluation is concerned with student achievement of objectives.

T or F 3. Evaluation takes place only at the end of instruction.

T or F 4. Both quantitative and qualitative judgments are made during evaluation.

T or F 5. Formative evaluation is defined as using specific forms to record student performance.

T or F 6. Evaluation of a radiograph is an example of product evaluation.

T or F 7. Evaluation may often be subjective.

T or F 8. Objectives are useless in the clinical setting.

T or F 9. Students have fewer rights now than ever before.

T or F 10. The Buckley Amendment gives students the right to object to an assignment.

T or F 11. Students should have a copy of all clinical policies prior to clinical practice.

T or F 12. Observation is inappropriate for assessing attitudes.

T or F 13. Simulations are a useful substitute for many clinical procedures.

T or F 14. Clinical instructors never need to give paper and pencil tests.

T or F 15. All students should be taught to evaluate themselves.

PRE-TEST ANSWER KEY

1. T
2. T
3. F Evaluation is an ongoing process made during and after instruction.
4. T
5. F Formative evaluation is made while students are still learning as a means to provide feedback.
6. T
7. T
8 F Objectives are necessary for the clinical area.
9 F Students have more rights than ever.
10. F The Buckley Amendment gives students a right to inspect their records and challenge the records.
11. T
12. F Observation is very useful for assessing attitudes.
13. T
14. F Paper and pencil tests are useful for assessing knowledge.
15. T

Read the Definition of Terms on the next page; then go on to Learning Activity #1.

DEFINITION OF TERMS USED IN THIS MODULE

Anecdotal record - a note containing exactly what a student said or did in a concrete situation with the observer's interpretation of the behavior or action.

Artifact - any object made by human work.

Critical incident report - a documentation of one or a series of student behavior(s) or action(s), including the consequences of the behavior(s) or action(s).

Deportment - the manner of conducting oneself; behavior.

Due Process - the exercise of the powers of the government in such a way as to protect individual rights.

Litigation - a suit at law.

Measurement - process of obtaining a numerical description of the extent to which a person or thing possesses some characteristic.

Professional Characteristics - traits or qualities needed by health occupations professionals, such as attitudes, communication skills, habits, etc.

Qualitative - distinguished by differences in attributes rather than by numerical differences.

Quantitative - concerned with measurement and numerical differences.

Simulation - making the practice and materials as near as possible to the situation in which the teaching will be applied.

Testing - use of some specific instrument or set of instruments to determine a quality or trait; produces quantitative representation of a pupil trait.

LEARNING ACTIVITY #1

THE CONCEPT OF CLINICAL EVALUATION

Enabling Objective 1: Discuss the role of evaluation as it relates to the total clinical education process.

What is Evaluation?

Evaluation has been defined by many experts and researchers in the field of education. The definition of evaluation depends primarily on the purpose for which it is used. The following are definitions of evaluation that have been cited in the literature. Evaluation is:

1. the process of delineating, obtaining, and providing useful information for judging decision alternatives. (Stufflebeam, et al., 1971)

2. the collection of information and judgments to facilitate planning, to aid in the improvement of programs, and to meet accountability demands. (Wentling, 1980)

3. the process of determining the kinds and degrees of changes in behavior that have occurred and of judging whether these changes are adequate for the purposes specified. (Hagen, 1963)

4. a systematic process of determining the extent to which instructional objectives are achieved by pupils. (Gronlund, 1976)

As you review the four definitions, you will note that numbers 1 and 2 are general definitions. These are useful when the purpose is to evaluate a program. Examples may be the evaluation of a nursing school curriculum or an evaluation of the clinical education aspect of a medical laboratory program. Evaluation in this sense is being used to make decisions concerning a program.

Definitions 3 and 4 refer to the evaluation of students within a program. When evaluating student progress, educators are determining whether a change in behavior has occurred and whether the objectives have been achieved by a student.

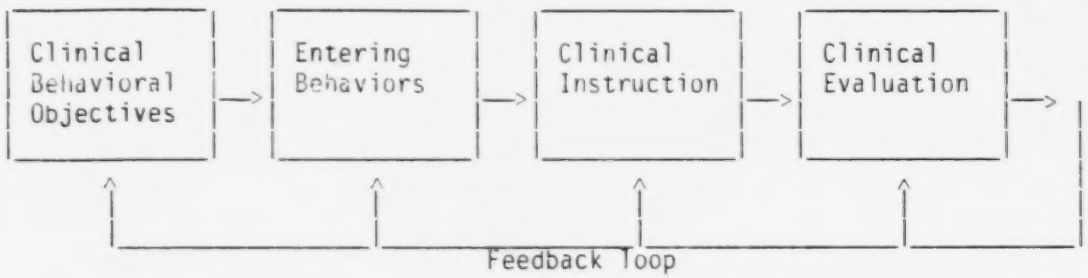
Directors or coordinators of health occupations programs utilize evaluation to make major decisions. They are accountable to the school, accreditation agencies, health-care agencies, consumers, students, and anyone else with an interest in the program.

Instructors primarily utilize evaluation to make judgments about students. As a clinical instructor, your primary concern is to evaluate the students' achievement of objectives and their competence in performing procedures. You can also provide valuable input into the decisions that need to be made about

the clinical phase of the program. Clinical instructors need to be concerned with the evaluation of student progress as well as the evaluation of the clinical education program.

Evaluation as Part of the Total Teaching Process

Evaluation is an essential step in the teaching-learning process. The role of evaluation in this process is depicted in the following diagram:



Adapted from DeCecco, J. P. & Crawford, W. R. (1974)

The first step in the process is to develop behavioral objectives for the students' clinical education. (See the module, "Teaching Skills in the Clinical Setting: Developing Measurable Performance.") The next step is to assess the students' entering behavior in order to determine what instruction must be provided to help the students achieve the objectives. In step 3, clinical instruction takes place. The students' achievement of the objectives is evaluated in step 4. Note the feedback loop in the diagram. This feedback loop is used to evaluate the entire process, and could be correlated with program evaluation as discussed earlier in this activity. The feedback loop allows revisions to be made at any point in the instructional process.

Purpose of Evaluation

Many educators believe that the purpose of clinical evaluation is to determine whether or not a student is capable of performing the assigned competencies. This is a correct assumption. However, clinical evaluation serves many other purposes. Schweer (1972) developed a list of purposes of clinical evaluation in nursing that may be adapted for any health occupation. Clinical evaluation should serve the following purposes:

1. To determine the degree of background knowledge and clinical ability the students bring to the situation.

2. To determine the degree of progress reacned by each student at frequent intervals.

3. To determine students' ability to apply the theory of their occupation as a whole while developing clinical skills.

4. To discover learning difficulties of students individually and as a group.

5. To determine individual student strengths and weaknesses in order to provide remedial and advanced assignments.

6. To provide reinforcement of learning for students.

7. To help students develop self-understanding and acceptance through self-evaluation.

8. To determine the readiness of students to become self-directive in providing direct patient care.

9. To determine the effectiveness of the selected instructional techniques in meeting the objectives.

10. To collect data for use in determining student eligibility for honors programs and graduation.

11. To collect data for conducting research related to student achievement.

Summary

After completing this activity, you should be familiar with the meaning of educational evaluation and how it relates to the clinical teaching-learning process. You should also be familiar with other purposes of evaluation. Complete the Self-Check of this activity to check your understanding of evaluation.

SELF-CHECK FOR LEARNING ACTIVITY #1

A. For each of the following parts of definitions of evaluation, specify whether the definition pertains more to program evaluation (P) or to student evaluation (S) by placing a (P) or an (S) in the space provided.

_____ 1. Determining behavior changes

_____ 2. Collecting information for improvement of curriculum

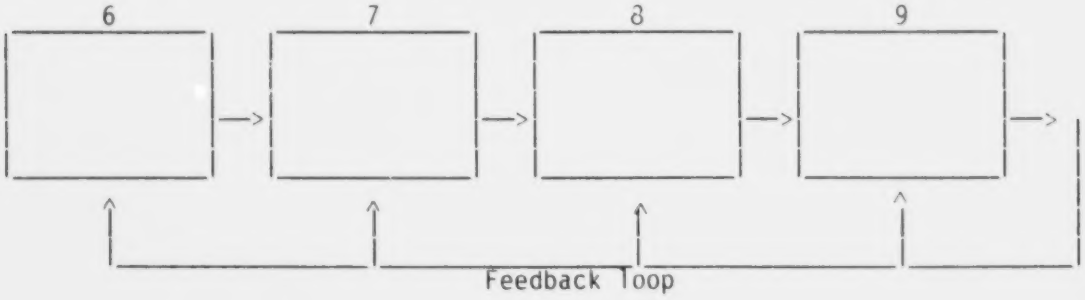
_____ 3. Providing information for judging decision alternatives

_____ 4. Determining achievement of behavioral objectives

_____ 5. Meeting accountability demands

B. Fill in the Teaching Process diagram with the steps as selected from the following list:

- Clinical Instruction
- Clinical Behavioral Objectives
- Clinical Evaluation
- Entering Behaviors



10. What is meant by the feedback loop?

11. List 3 purposes of clinical evaluation.

a.

b.

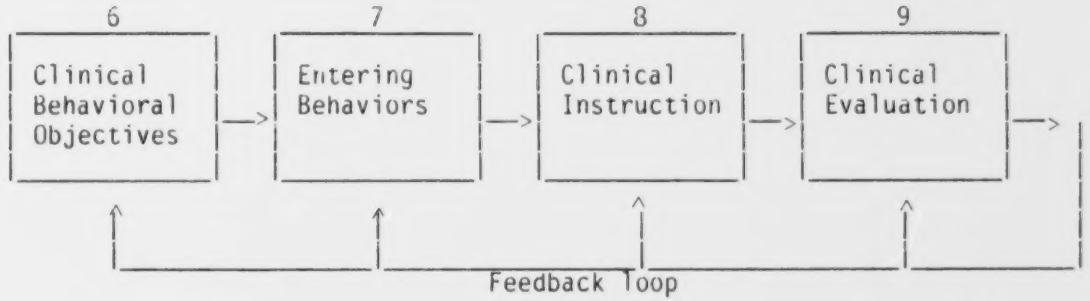
c.

Check your answers using the key on the next page.

SELF-CHECK ANSWER KEY

A. 1. S
2. P
3. P
4. S
5. P

B.



10. The feedback loop represents evaluation of the entire clinical teaching process.

11. Clinical evaluation should serve the following purposes: (any three)

    1. To determine the degree of background knowledge and clinical ability the students bring to the situation.

    2. To determine the degree of progress reached by each student at frequent intervals.

    3. To determine students' ability to apply the theory of their occupation as a whole while developing clinical skills.

    4. To discover learning difficulties of students individually and as a group.

    5. To determine individual student strengths and weaknesses in order to provide remedial and advanced assignments.

    6. To provide reinforcement of learning for students.

    7. To help students develop self-understanding and acceptance through self-evaluation.

    8. To determine the readiness of students to become self-directive in providing direct patient care.

9. To determine the effectiveness of the selected instructional techniques in meeting the objectives.

10. To collect data for use in determining student eligibility for honors programs and graduation.

11. To collect data for conducting research related to student achievement.

LEARNING ACTIVITY #2

EVALUATION TERMINOLOGY

Enabling Objective 2: Distinguish between various terms used to describe evaluation.

Many terms are associated with educational evaluation. Those who evaluate students should be familiar with these terms to facilitate their understanding of the evaluation process, as well as their communication with other educators.

Evaluation vs. Measurement and Testing

Educators often confuse evaluation with measurement or testing. Matusak (1983) provides delineation between these terms. Measurement is a descriptive process used to quantify the extent of student achievement. Measurement involves collecting and quantifying data. Testing involves the use of specific measurement tools to determine the value of a quality or trait. Instructors use tools to test students' knowledge of facts, principles, or performance with sets of questions that have right or wrong answers. (Frisbie, 1979) A test is one type of measurement technique. Evaluation is a process used to translate the measurement data into value judgments. Evaluation involves making judgments about the quality of a student's performance following the quantitative measurement.

Clinical instructors spend a great deal of time completing instruments in order to collect data about students. Furthermore, clinical instructors need to make qualitative judgments about the students' performance and provide the students with feedback about their performance. In this sense, clinical instructors should look at the total picture of evaluation as more than the process of testing and measurement.

Formative and Summative Evaluation

Perhaps the most important concept related to clinical evaluation is the distinction between formative evaluation and summative evaluation. It is very important for clinical instructors to be able to distinguish between these two types of evaluation so that they can best meet the needs of the learners. In the simplest terms, formative evaluation is made during the learning process and summative evaluation is made at the end. The following chart includes more comprehensive descriptions various authors have made to distinguish between formative and summative evaluation.

FORMATIVE VS. SUMMATIVE EVALUATION

Source	Formative Evaluation	Summative Evaluation
1) Middleton and Holcomb (1974)	Assessment of the quality of the instructional process or sequence in order to improve the sequence itself.	Assessment of the effectiveness at the completion of a program, course, or rotation. Determines the overall effect of the instructional sequence.
2) Morgan, Luke, and Herbert (1979)	The identification of additional learning required for mastery; continuous feedback between teacher and student.	Provision of a more general assessment of student achievement at the end of a learning time.
3) Friesner (1977)	Provides data on how students are changing during the learning experience in relation to the achievement of objectives.	Provides data on how students have changed and involves larger areas of course objectives.
4) Clark and Bozian (1983)	Diagnosis of changes that the learner needs to make. It is made when the learner is practicing.	Given at the end of an educational experience. The learner's behaviors are compared to the objectives of the course.

Formative evaluation is made in the clinical setting when the student still requires supervision to perform the assigned procedures. Clinical instructors use formative evaluation to assist students to improve.

Clinical educators use summative evaluation to make a final evaluation of a student's performance of a procedure. Summative evaluations are used to determine a student's clinical grade, and to give the "rubber stamp" stating that the student is competent to perform the procedure(s).

It is important that you, as an educator, evaluate your students both formatively and summatively. Evaluation should be an ongoing process in which the student continuously receives feedback and guidance. Evaluation should also be utilized as a way to determine whether a student has achieved a satisfactory level of proficiency.

Process vs. Product Evaluation

Evaluation can also be focused on the process or product. Process evaluation is the evaluation of the student's actual performance of a procedure. In this type of evaluation, the clinical instructor observes and evaluates the process or the student's performance. Product evaluation, as defined by Broski (1978), is the determination of the value, merit, or worth of an artifact generated from a performance and having a functional application. Examples of products that may be evaluated are radiographs, patient-care plans, or blood samples. The product is the end result following the student's actual performance of a clinical procedure.

Some health occupations areas evaluate products more extensively than others. Clinical educators need to ensure that they evaluate those products that serve an important function.

Summary

This activity has included some of the terminology associated with evaluation. Go on to the Self-Check exercise to check your ability to distinguish between terms.

SELF-CHECK FOR LEARNING ACTIVITY #2

A. MATCHING - For each of the descriptions in column A, select the evaluation term from column B that is best related to the description. Place the letter corresponding to your choice in the space provided.

A	B
_____ 1. Diagnosing changes needed by the learner	a.. Measurement
_____ 2. Radiographs or care plans	b. Testing
_____ 3. Quantifying the extent of a student's achievement	c. Formative Evaluation
_____ 4. Given at end of a course	d. Summative Evaluation
_____ 5. Identifying additional learning needed for mastery	e. Product Evaluation
_____ 6. Determining the value of an artifact	
_____ 7. Use of measurement tools	
_____ 8. Continuous feedback between the instructor and student	
_____ 9. Assessment conducted at the end of the learning time	

B. SELF-ASSESSMENT OF UTILIZATION OF FORMATIVE AND SUMMATIVE EVALUATION - Complete the following rating form to assess your utilization of formative and summative evaluation by placing an (X) in the appropriate column. Total your scores when you are finished.

		Rarely 1	Occasionally 2	Almost Always 3	Score
Part I					
1.	I provide feedback to students when they are practicing.	____	____	____	____
2.	I periodically evaluate so that I can improve my teaching.	____	____	____	____
3.	I make an attempt to determine how students are changing.	____	____	____	____
4.	I attempt to identify additional learning needed for mastery.	____	____	____	____
5.	I evaluate students shortly after they begin their clinical experience.	____	____	____	____
			PART I TOTAL		____
PART II					
6.	I provide a total evaluation of the students at the end of their clinical rotation.	____	____	____	____
7.	I attempt to evaluate the overall effectiveness of a clinical course.	____	____	____	____
8.	I evaluate to provide data for determining grades.	____	____	____	____
9.	I determine if a student is competent in a procedure.	____	____	____	____
10.	I evaluate the final achievement of objectives.	____	____	____	____
			PART II TOTAL		____

Total your scores for Part I and for Part II. Compare your scores with those on the Answer Key.

SELF-CHECK ANSWER KEY

A. 1. c

2. e

3. a

4. d

5. c

6. e

7. b

8. c

9. d

B. I. If your total score for Part I is below 12, you need to improve on the amount of formative evaluation you utilize. Try to determine the areas in which you need to improve.

II. If your score for Part II is below 12, you are probably not providing adequate summative evaluation of your students and of the total clinical education process. Try to determine the areas in which you require improvement.

LEARNING ACTIVITY #3

PROBLEMS IN CLINICAL EVALUATION

Enabling Objective 3: Examine your clinical site to determine existing problems related to clinical evaluation.

As all clinical instructors know, clinical evaluation is often a difficult task. Many of the difficulties arise because of the inherent problems that exist with the clinical evaluation process. Wood (1982) provides a thorough analysis of current problems in clinical evaluation of nursing students that may be applied to all health occupations areas. These problems are summarized as follows:

1) Subjectivity of clinical evaluation. Because clinical evaluation is based on human observation, it is inherently biased and subjective. This causes problems in that each instructor evaluates a student in a different manner.

2) Multitude of personalities and other variables in the clinical setting. The clinical setting is a constantly changing environment that is influenced by the personalities of physicians, health professionals, other staff, and the patients. These differences in personalities, combined with the numerous illnesses and other patient factors, affect the evaluation of student performance.

3) High student-instructor ratios. A clinical instructor is usually responsible for evaluating up to 10 students during any given clinical rotation. Because of this, instructors are unable to observe a single student all of the time, and thus the evaluation of the student is based on only a small sample of the student's total clinical performance.

4) Assessment of the student during learning. Because of the limited time the student spends at the clinical site, instructors are often forced to make summative evaluations of the student's performance during the very early stages of the clinical rotation. Oftentimes, at this point, students are still making adjustments to the clinical site and are still learning. This is not the ideal time to make final evaluations.

5) Lack of comparable learning experiences for each student. No two situations are alike in a real-life setting such as the clinical setting. This has implications for clinical evaluation in that different students are presented with different learning experiences. It is therefore impossible for an instructor to evaluate two students in identical situations.

6) In addition to the problems already discussed, Forbes and Nelson (1979) included the following problems with clinical evaluation:

- Lengthy evaluation tools--oftentimes students are unable to meet every objective.

- Clinical evaluation tools do not allow for individual differences and student learning needs.

- The time frame for a clinical rotation is not flexible enough to allow students to progress at their own rate.

- It is difficult to determine which grading system is most appropriate: pass-fail, numerical, or other.

- Most programs do not seek student input into the evaluation process.

Minimizing the Effects of the Problems

It is impossible to eliminate all of the problems associated with clinical evaluation. Nevertheless, instructors can make an attempt to lessen the effects of these problems. The following are suggestions for doing this.

1) All humans are subjective and have certain biases. The clinical evaluator must make every attempt to minimize subjectivity so that each student is evaluated fairly and consistently. Meyer (1979) discusses the use of instructional objectives to decrease subjectivity. The faculty of a health occupations program should develop clear, measurable objectives for the clinical area. If the evaluation tools are based on these objectives, students are evaluated on specific criteria rather than on the opinions of the instructor. (See the module, "Teaching Skills in the Clinical Setting: Developing Measurable Performance Objectives.")

2) The clinical evaluator has little control over personalities and patient conditions that affect the evaluation process. It is important that clinical instructors are fully aware of these differences and that they make every attempt to consider their effects on student performance.

3) Clinical instructors used to ensure that all students are given adequate attention. Even though the clinical evaluator is responsible for numerous students, no single student should be slighted.

4) Students should not receive final evaluations while they are still learning procedures. Morgan, Luke and Herbert (1979) make a careful distinction between learning time and evaluation time. They state that learning time is the time for the students to ask questions, make mistakes, and practice skills. Evaluation time is when the instructor gathers data and makes decisions about the proficiency achieved by the students. The authors correlate learning time with formative evaluation and evaluation time with summative evaluation.

5) Instructors must be fully aware of differences in learning experiences. For example, student A should not be compared with student B on the performance

of an exam on a patient. It is very likely that one student had a more difficult patient, or another variable was present that affected his/her performance. Clinical faculty should evaluate students according to identified criteria, and should take into consideration difficulties due to patients or other factors, e.g., equipment.

6) Many factors need to be considered by program faculty when establishing policies and procedures for clinical evaluation. The evaluation tools must be kept as brief as possible and designed so that they allow for individual student learning needs. Students should be given adequate time in each clinical rotation so that they meet all of the objectives. A grading policy should be established, and program faculty should periodically review the suitability of the policy. Students should be allowed to have input into the evaluation process.

Summary

This activity has included some of the problems that may occur in the clinical evaluation process. As a clinical instructor, you can probably identify additional problems that occur at your clinical site. Keep in mind that these problems exist in all health occupations programs. It is important that you make every attempt to minimize their effects on students and the program. Completion of the Self-Check exercise of this activity will allow you to examine your clinical site to determine if these problems are affecting clinical evaluation.

Go on to the Self-Check.

SELF-CHECK FOR LEARNING ACTIVITY #3

A. Rate the effect that each of the problems listed below has on clinical evaluation in your program by placing one of the following numbers in the blank provided.

1 - Minimal or No Effect
2 - Moderate Effect
3 - Significant Effect

	Problem	Extent of Effect
1.	Subjectivity of evaluators	_____
2.	Personalities of staff and physicians	_____
3.	Patient personalities	_____
4.	Patient conditions	_____
5.	Large numbers of students	_____
6.	Limited time students spend in the clinical area, forcing final evaluations while students are still learning	_____
7.	Lack of comparable learning experiences for students	_____
8.	Lengthy evaluation tools	_____
9.	Inability of evaluation tools to provide for individual differences	_____
10.	Inflexible time frame--students cannot progress at their own rate	_____
11.	Difficulty in selecting a grading system	_____
12.	Lack of student input into the evaluation process	_____

B. List any additional problems in your clinical area that were not mentioned above.

C. Evaluate the degree to which you adhere to the following ways to minimize problems with clinical evaluation, by placing one of the following numbers in the blank provided.

1 - Rarely
2 - Usually
3 - Almost always

Ways to Minimize Problems	Self-rating
1. Base evaluations on measurable objectives to minimize subjectivity	____
2. Consider different personalities and patient factors when evaluating students	____
3. Provide adequate attention to all students	____
4. Complete final evaluations only after students have sufficiently practiced procedures	____
5. Evaluate students according to stated criteria rather than comparing them to each other	____
6. Ensure that the program has established policies and procedures for clinical evaluation, and that these policies are periodically reviewed	____

Check your answers!

SELF-CHECK ANSWER KEY

A. In the space below, make a list of all of the items you rated as having a significant effect (3) or a moderate effect (2). These items should be discussed with your program coordinator to determine ways in which you can minimize their effects on clinical evaluation.

Those problems that you rated as having minimal or no effect (1) are apparently under control, and you should make efforts to continue to control these problems.

B. List of your additional problems: These should be discussed with your coordinator.

C. List below those items in which you have a self-rating of 1 or 2 (rarely or usually). These items are areas of needed improvement, and should be discussed with your program coordinator.

LEARNING ACTIVITY #4

LEGAL ASPECTS OF CLINICAL EVALUATION

Enabling Objective 4: Review the legal considerations involved in evaluating students in the clinical setting.

As evidenced by the material discussed in Learning Activity 3, clinical evaluation is complex and often problem-ridden. The clinical evaluation process becomes even more complex when one considers the legal aspects of clinical evaluation. It is essential that clinical instructors in all health occupations areas be familiar with these legal aspects so that the program, faculty, and students are protected in case litigation occurs. This Learning Activity will include a brief discussion of the legal aspects associated with the process of clinical evaluation. The reader should refer to program administrators or legal experts with any concerns involving actual situations.

Students' Rights

Today's student is viewed as a consumer of an educational system--in your case, of a health occupations program. As discussed by Golembiecki and Ethington (1979), the student is a consumer and has the right to quality education which assures that he/she will become a safe practitioner.

Clinical faculty have a dual responsibility in this regard:

1) To the student
2) To the patient, who is the consumer of the student's patient care

Today's students have greater legal protection than ever. Their rights are concerned with the following areas:

1) Discipline - Students now have a right to due process in cases involving discipline or misconduct. This means that students must be notified of any grounds for discipline, and they have a right to a hearing before the educational institution may take any disciplinary action. The institution must demonstrate that due process was followed and that the action taken was appropriate.

2) Inspection of Records - A major law that affects students' rights is the Buckley Amendment to The Family Rights and Privacy act of 1974. This law gives students the right to inspect all of their educational records and to challenge any facts within the records. This includes all clinical records.

3) Academic Standards - Dismissing students for academic reasons is looked upon differently than dismissing for reasons of misconduct. In a 1978

case involving the dismissal of a medical student, the U.S. Supreme Court ruled in favor of the university. In this case, the court upheld the right of educators to exercise subjective judgment in assigning a grade. (Fowler & Heater, 1983)

4) Other Areas - Adams, et al. (1979), mention additional concerns considered to be legitimate reasons for dismissing students. These include: inability to accept criticism, lack of clinical interest or competence, poor personal hygiene, unacceptable personal deportment, and the inability to get along with others.

Protection from Litigation

Health occupations programs and instructors must protect themselves in case they are challenged in court. Fowler & Heater (1983) provide 4 guidelines for institutions pertaining to the process of clinical evaluation:

1) Academic requirements for graduation should be clearly stated and communicated in writing to all students.

2) Standards for evaluation of student performance should be clearly stated and provided to all students.

3) Educational programs should have an appeal system available for students to challenge evaluations of their performance. A committee of professionals should be established who can sustain or reject the faculty member's judgment.

4) Students who have been judged unsatisfactorily should be advised of deficiencies prior to dismissal as part of the formative evaluation process.

As representatives of the health occupations program, clinical instructors must assume responsibility and honor the rights of students.

Adams, et al. (1979), discuss procedures used at their school of nursing. The procedures are:

- Program faculty write daily anecdotal records on every student (written evidence about what the student has or has not done). The student reads them, and, upon agreement, signs a form. Anecdotal notes are kept until a student graduates.

- Mid-term conferences are held with each student to discuss strengths and weaknesses about clinical performance. Students with unsatisfactory performance are placed on warning and sign a warning form.

- Final clinical evaluations, based on clinical objectives, are written and discussed with the student. Evaluation guidelines are given to the students at the beginning of a course.

- If a student fails a clinical course, the case is brought to a faculty committee, and the committee decides if the student will be allowed to repeat the course or be dismissed. After being informed of the decision to dismiss, the student has 24 hours to ask for an appeal. An appeal committee makes the final decision.

- Faculty may dismiss students on the grounds of cheating or indiscretion in professional or social conduct. A student may also be dismissed if he/she appears to be mentally, physically, or socially disqualified for meeting the requirements to be a professional practitioner.

- All school policies are published in a school catalog, and students have input at faculty committee meetings when policies are established.

Summary

This activity included a discussion of the legal implications of clinical evaluation. The best protection against student litigation is the development of established policies and guidelines for clinical education.

The policies and guidelines for a health occupation program are usually established by the coordinator or director of the program. Clinical instructors should help formulate these policies, and have an even greater responsibility to ensure that students adhere to them.

It is important that clinical instructors be fully aware of their liability regarding students' evaluation. As an instructor, you must be familiar with your program's policies and make sure that the students you supervise are also familiar with the policies. When in doubt, consult your program administrators and legal experts.

Go on to the Self-Check.

SELF-CHECK FOR LEARNING ACTIVITY 4

A. Short Answer: Answer each of the following.

1. A student has a right to due process if he/she has been accused of misconduct. What is meant by due process?

2. What basic rights are given to students by the Buckley Amendment?

3. What is the overall purpose of an appeal system for health occupations students?

4. What should clinical instructors do when they are doubtful about the legal implications of a decision they are making?

(continued next page)

B. Self-Evaluation of Your Program: Each of the following procedures is used by programs for protection against litigation. Using the checklist, indicate whether or not your program follows similar procedures.

	Yes	No
1. Clinical evaluation guidelines are given to students at beginning of the course.	____	____
2. Anecdotal notes or written evidence of what each student has or has not done are written and kept until the student graduates.	____	____
3. Students sign all warning notices.	____	____
4. A faculty committee reviews cases involving student failure of a clinical course.	____	____
5. An appeal system is available to the student.	____	____
6. School policies are published in a catalog.	____	____

Check your Answers!

SELF-CHECK ANSWER KEY

A. 1. Due process means that students must be notified of grounds for discipline, and they have a right to a hearing before the school may take disciplinary action.

2. The Buckley Amendment gives students the right to inspect all of their educational records and to challenge anything in the records.

3. An appeal system is needed so that students can challenge any action taken against them. This is part of due process.

4. When doubtful about a decision, clinical instructors should seek the advice of their program coordinator and/or a legal consultant.

B. Your answers should be "yes" for all procedures (1-6). If you answered "no" to any of the procedures, you are either unaware of the policy or it does not exist. You should review the policies with the coordinator of your program to make sure your program is protected against litigation by students.

LEARNING ACTIVITY #5

APPROACHES OR TECHNIQUES FOR CLINICAL EVALUATION

Enabling Objective 5: Given a series of situations, indicate which evaluation technique you would utilize.

When evaluating students in the clinical setting, the instructor may use several approaches or techniques. The particular technique(s) selected is/are dependent upon whether the instructor is evaluating the student's knowledge about something, skill at performing a procedure, or professional characteristics.

The evaluation techniques to be addressed in this activity are: 1) observation of actual clinical performance, 2) simulations, 3) paper and pencil tests, and 4) student self-assessment. Each technique will be discussed in terms of its use in evaluating student knowledge, performance, and/or professional characteristics.

A. Observation of Actual Clinical Performance

Observation is undoubtedly the most frequently used form of clinical evaluation. During observation, the evaluator inspects or examines a student's performance and makes a record of the observation. Observation is used for formative as well as summative evaluation, and is fairly easy to conduct. On the other hand, observation has a tendency to be subjective and less reliable than other methods. As discussed in Learning Activity 3, clear, measurable objectives should be used as the criteria for a student's performance in order to minimize subjectivity.

The technique of observation has several applications, including the assessment of a student's knowledge, proficiency at performing skills, and demonstration of professional characteristics during the performance of a clinical procedure. Records of observations are made using instruments such as checklists, rating scales, anecdotal records, and critical incident techniques. (These instruments are discussed in the module, "Clinical Evaluation: The Use of Appropriate Evaluation Instruments.")

B. Simulations

A technique that is gaining wide use in health occupations education is the simulation. Hoban and Casbergue (1978) define simulation in health occupations education as the act of closely approximating and controlling aspects of the practical realities of health-care for purposes of: 1) accomplishing instructional objectives, or 2) evaluating specific performance competencies.

For a discussion of the use of simulations to accomplish instructional objectives, see the module, "Teaching Skills in the Clinical Setting: Incorporating Creative Teaching Techniques." This activity will include a discussion of the second purpose of simulations--evaluating specific performance competencies.

Types of Simulations: Simulations are classified into 5 types: written (paper and pencil), simulated patients (and role playing), mannequins, audiovisual, and computer.

a) In a written simulation, students are given a problem on paper and must choose from alternative responses. Such problems help students with problem-solving and decision-making. The scores obtained by students are used for their evaluation.

b) In patient simulations, individuals are trained to play the role of a patient. These individuals may be students or fellow workers. An example might be an individual trained to exhibit symptoms of a particular illness. In patient simulations, the student is evaluated on his/her ability to solve the particular problem or handle the situation.

c) Mannequins are 3-dimensional models of part or all of the human body. An example might be a venipuncture arm of a resuscitation mannequin. Simulations using mannequins can be used to evaluate student performance. However, they have limitations in that they do not replicate real-life situations.

d) In audiovisual simulations, slides, tapes, videotapes, or some other medium is used to simulate a real-life situation. Examples are a videotape of a patient problem or an audiotape of heart sounds. Students are evaluated on their ability to determine causes of the problem, etc.

e) Computer simulations have been used widely in medicine for assessing the student's ability to diagnose and treat illnesses. In this type of simulation, computer software is used to represent a case involving a patient problem or other type of problem. Tests are administered and scored by the computer. It is likely that this method will be used more in health occupations education as the use of computers continues to increase.

Simulations are useful for evaluating students in all health occupations areas. An advantage in using simulations for evaluating students is that all students are evaluated in the same manner. There are no differences in patient condition or personality that may affect a student's performance.

Simulation also meets an additional need in today's complex health-care system. Because of limited resources and the lack of available procedures, health occupations programs are being forced to look into alternative methods for evaluating students. The simulation is the nearest thing to

reality, and its use is now a necessity. However, health occupations educators must realize that there is no complete substitute for reality. Students still need to experience the feelings associated with working in a real setting with real patients, staff, and physicians. Real-life experiences should be used whenever possible, especially for summative evaluations.

C. Paper and Pencil Tests

As mentioned earlier, observations may be used to determine whether or not a student has the prerequisite knowledge needed to perform a clinical procedure. However, observation is limited in that, if a student does not demonstrate competent performance, the evaluator does not know if the lack of competence was due to a lack of knowledge or to other factors related to the complexity of the clinical environment. (Stiggins, 1978) For this reason, the paper and pencil test is useful for assessing student knowledge. Students are usually given paper and pencil tests in the classroom portion of their health occupations training. Nevertheless, at times it may be useful for the clinical instructor to administer a paper and pencil test to students.

D. Self-Evaluation

Another useful technique is to have students evaluate their own clinical performance. Fuhrmann and Weissburg (1978) emphasize that because working health professionals are required to supervise themselves, they must also be able to evaluate themselves. Learning the process of self-evaluation is difficult and should be taught early in a student's education.

Instructors may require that students self-evaluate their knowledge, skills, relationships with patients, professional conduct, communication skills, attitudes, and almost any other aspect of their performance.

When using the process of self-evaluation, it must be only for formative evaluation and not for summative evaluation in the determination of grades, honors, etc. (Fuhrmann and Weissburg, 1978)

Self-evaluation instruments include checklists, rating scales, or any other instruments. Clinical instructors should use self-evaluation to help their students become more independent, more self-motivated, and more self-challenging.

Summary of Techniques

As discussed in the introduction, selection of an evaluation technique depends on the purpose of the evaluation.

The following reference chart, adapted from Irby (1974), identifies which techniques are most appropriate for evaluating student knowledge, skill at performing, and professional characteristics.

Area to be Evaluated	Techniques
Knowledge	Paper and pencil test Observation Simulation
Performance Skill	Observation Simulation Self-evaluation
Professional Characteristics or Attitudes	Observation Self-evaluation Simulation

Each technique requires the use of some type of evaluation instrument to record the data collected. The module, "Clinical Evaluation: The Use of Appropriate Evaluation Instruments," provides an analysis of evaluation instruments and their selection. Following completion of this module, you should review the module on evaluation instruments so that you have a thorough understanding of the theory and application of evaluation as it is used in the clinical setting.

Go on to the Self-Check exercise.

SELF-CHECK FOR LEARNING ACTIVITY #5

A. Following is a list of clinical evaluation techniques and associated characteristics. For each set of characteristics, indicate which are true and which are false, by circling the correct response.

Observation:

T or F 1. Most frequently used form of clinical evaluation.

T or F 2. Used only for summative evaluation.

T or F 3. May be subjective.

T or F 4. Used for assessing knowledge, clinical performance, and professional characteristics.

T or F 5. May use a variety of instruments to make a permanent record.

Paper and Pencil Tests:

T or F 6. Best method for assessing clinical performance.

T or F 7. Used primarily in the classroom.

Self-Evaluation:

T or F 8. Most useful for summative evaluation.

T or F 9. May use a variety of instruments.

T or F 10. Helps students become more self-challenging and self-motivated.

B. Specify the type(s) of simulation best described in each statement by placing the letter(s) of your choice in the space provided.

a. Written
b. Simulated patients
c. Mannequins
d. Audiovisual
e. Computer

_____ 1. Individuals trained to act as patients.

_____ 2. Use of software to present problems.

_____ 3. Paper and pencil representation of problems.

_____ 4. Use of models.

_____ 5. Heart sounds on a tape.

_____ 6. Limited use in that they do not replicate real-life situations.

_____ 7. Role-playing.

C. Assume that you are the clinical instructor in each of the following situations. For each situation, specify which technique(s) you would use to evaluate the student. Select from the list and place the letter of your choice(s) in the space provided.

a. Observation (real-life)
b. Simulation
c. Self-evaluation
d. Paper and pencil test

_____ 1. A student's viewpoint of her conduct continues to differ from yours.

_____ 2. You are evaluating students as they perform CPR.

_____ 3. You have heard that a student is rude with patients.

_____ 4. During a procedure, a student seems to have trouble remembering the steps.

_____ 5. You need to evaluate students on a procedure rarely done at your clinical site.

Check your answers.

SELF-CHECK ANSWER KEY

A.
1. T
2. F
3. T
4. T
5. T
6. F
7. T
8. F
9. T
10. T

B.
1. b
2. e
3. a
4. c
5. d
6. a,b,c,d, or e
7. b

C.
1. c - Self-evaluation - It would be valuable to have the student self-evaluate her conduct.
2. b - Simulation - CPR is an excellent use of the simulation technique.
3. a - Observation - The student should be observed with numerous patients and records should be made.
4. d - Paper and Pencil Test - This will enable you to determine if the student has trouble remembering the steps or is affected by other factors (i.e., patient anxiety, etc.)
5. b - Simulation - When procedures are not available for students, simulations are the best substitute for real-life situations.

This completes the Learning Activities of the module. If you feel confident in your knowledge of evaluation in the clinical setting, proceed to the Post-Test.

POST-TEST

Directions: Complete this test after successful completion of the five Learning Activities and Self-Check activities. Do not use the key or the module itself to take the test.

Part I - Multiple Choice: Answer each of the following by placing the letter corresponding to your choice in the blank provided.

_____ 1. Which of the following does not define evaluation?

a. Determining changes in behavior
b. Determining achievement of instructional objectives
c. Collecting information and judgments to aid in program improvement
d. Planning for instruction

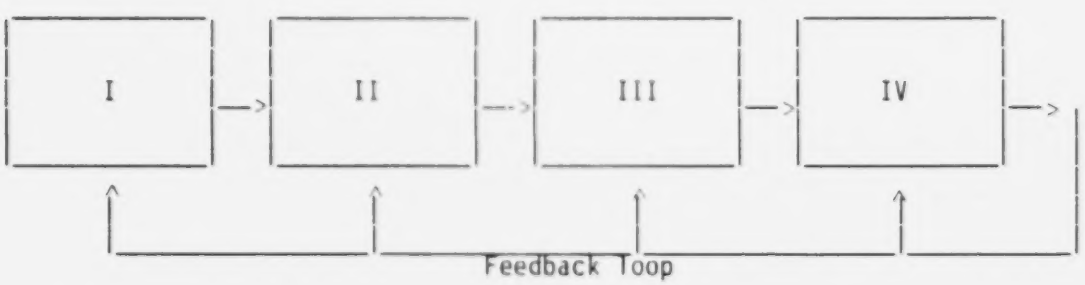
_____ 2. Clinical instructors primarily focus on _____ evaluation.

a. Classroom
b. Student
c. Program
d. Patient

_____ 3. Which type of evaluation is used to make decisions concerning the curriculum?

a. Patient
b. Student
c. Classroom
d. Program

Questions 4-6 pertain to the following diagram of the teaching-learning process.



_____ 4. What is represented by #II?

a. Clinical instruction
b. Behavioral objectives
c. Clinical evaluation
d. Entering behaviors

_____ 5. What is represented by #IV?

a. Clinical instruction
b. Behavioral objectives
c. Clinical evaluation
d. Entering behaviors

_____ 6. The feedback loop is correlated with:

a. Student responses
b. Program evaluation
c. Teacher evaluation
d. Negative feedback

_____ 7. Clinical evaluation may be used to:

a. Discover learning difficulties
b. Provide reinforcement of learning
c. Determine the degree of progress
d. All of the above

_____ 8. A process to quantify the extent of student achievement defines:

a. Testing
b. Evaluation
c. Measurement
d. None of the above

_____ 9. Which of the following does <u>not</u> describe summative evaluation?

a. Conducted at the end of learning time
b. Determination of overall effect of instruction
c. Assessment of learner's end behavior
d. Used to identify additional learning required

_____ 10. An example of product evaluation is evaluation of:

a. Instructional objectives
b. A patient-care plan
c. A student's performance
d. None of the above

_____ 11. Which of the following are potential problems in clinical evaluation?

a. Subjectivity of the evaluators
b. High number of students for each instructor
c. Both a & b
d. Neither a nor b

_____ 12. Which group(s) should have input into the clinical evaluation process?

a. Faculty
b. Students
c. Program coordinators
d. All of the above

_____ 13. Attempts should be made to minimize problems with clinical evaluation by:

a. Dismissing all students with unusual personalities
b. Comparing students with each other
c. Basing evaluations on clear, measurable objectives
d. Minimizing the use of formative evaluation

_____ 14. The Buckley Amendment gives students the right to:

a. Inspect their records
b. Change records they feel are incorrect
c. Display misconduct
d. Miss clinical assignments

_____ 15. Which of the following are included in a student's right to due process?

a. Right to a hearing
b. Free legal advice
c. Notification of grounds for discipline
d. Inspection of records

_____ 16. Most clinical evaluation is done by the process of:

a. Simulation
b. Observation
c. Critical incident technique
d. Paper and pencil tests

_____ 17. The most useful evaluation method for assessing knowledge is:

a. Anecdotal records
b. Paper and pencil tests
c. Observation
d. Self-evaluation

_____ 18. Computer simulations are most useful for assessing:

a. Knowledge
b. Attitudes
c. Skills
d. Values

_____ 19. Which of the following should not be used as a primary summative evaluation technique:

a. Observation
b. Simulation
c. Paper and pencil test
d. Self-evaluation

_____ 20. Which evaluation technique is a useful substitute for a lack of real-life clinical situations?

a. Paper and pencil test
b. Self-evaluation
c. Simulation
d. Peer evaluation

Score your test using the following key.

POST-TEST ANSWER KEY

1. d
2. b
3. d
4. d
5. c
6. b
7. d
8. c
9. d
10. b
11. c
12. d
13. c
14. a
15. a
16. b
17. b
18. a
19. d
20. c

If you missed more than 3 answers, you should review the Learning Activities.

SUMMARY OF THE MODULE

Much has been written about clinical evaluation in all health occupations areas. This module provided a brief summarization of the theory and practice of clinical evaluation.

As evidenced by the material in this module, clinical evaluation is a complex process with many potential problems. Clinical instructors must be aware of these problems and make attempts to minimize their effects.

However, it is more important for clinical instructors to maximize the positive effects of clinical evaluation. The students, instructors, and program in general can derive great benefit from the information gained during the evaluation process.

After completion of this module and the next module on evaluation instruments, you should refer to your professional journals and the list of references in the modules for more information regarding the clinical evaluation process. These activities will help you to meet the "challenge of clinical evaluation."

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